

## GARIBALDI.

The Veteran Fighter as an Industrial Leader.

## THREE GREAT PEACEFUL PROJECTS

Old Tiber To Be Deepened and Straightened.

The Campagna Romana To Be Irrigated and Drained.

## ROME TO HAVE A NEW PORT AND HARBOR

The Italian Patriot to the Herald.

He Sketches His Plans Briefly, and Asks the Sympathy of Americans as Well as Italians.

## AN HOUR AT VILLA CASALINI

How the Liberator Lives and Talks.

## GARIBALDI TO THE HERALD.

VILLA CASALINI, FUORI DI PORTO PIO, ROMA.  
JAMES GORDON BENNETT, Esq., Proprietario della New York Herald:—

Sento con piacere che il giornale, il cui editore, venuto dopo lunghe indagini sulle tracce del Dr. Livingstone, gli reco' gli ultimi soccorsi e conforti, si propone ora di cooperare con tutti i suoi sforzi al buon andamento della nostra impresa tendente a migliorare le condizioni igieniche di Roma e della Campagna Romana, assicurando ad esse la tanto desiderata prosperità.

È CERTO CHE IL POPOLO AMERICANO, che seppe compiere le portentose dighe del Mississippi e tracciare il canale navigabile pel quale le acque del Lago Michigan si ricongiunsero a quelle del fiume Illinois, s'interessano in progetti che esigeranno i massimi sforzi della scienza idraulica.

Questi progetti, in brevi parole, si riducono ai seguenti:—

1o. Deviazione del Tevere verso la sua sinistra girandolo attorno a Roma dal ponte Milvio fino ad oltre due miglia al sud della Città, scorse il qual tratto si farebbe rintracciare nel vecchio alveo.

2o. Costruzione di un porto commerciale e militare, capace delle più grandi navi presso le foci del Tevere a Fiumicino. Questo porto andrebbe scavato entro terra e sarebbe utile altresì come harbor of refuge.

Dall' argine sinistro Fiumicino partirà un molo di circa due chilometri lungo ed un second molo dall' argine destro circa d'un chilometro che formeranno l'entrata del porto e canale.

LE PICCOLE NAVI SALIREBBERO dal porto al Tevere o viceversa per mezzo dello stesso fiume sino a Ripagrande. Il miglioramento agronomico ed igienico della Campagna di Roma, e la deviazione di una parte delle acque dell' Aniene per irrigare le bonificate campagne saranno progetti da eseguirsi più tardi.

L'ATTUAZIONE DI TALI PROGETTI, ai quali ho brevemente accennato, dipende dal verdetto che gli uomini dell' arte dopo maturi studi daranno e dai loro calcoli finanziari. Non appena si prenderà qualche determinazione mi farò un dovere di tenervene informato.

Conto su voi per tener desta l'attenzione degli Americani e degli Italiani residenti in America sopra argomenti di così vitale interesse per Roma, per l'Italia e, diciamo pure, per il mondo tutto, che guarda a Roma come alla culla della fratellanza dei Popoli.

MARCH, 4, 1875.

G. GARIBALDI.

LA ROMA DELL' AVVENIRE.  
In a private letter to our correspondent, enclosing the above, the General sends the following characteristic message:—

Dite ai concittadini, eh' io vado sempre superbo d'esser uno dei loro; e che qualunque cosa si faccia da cotesti generosi del nuovo mondo e dai nostri Italiani residenti, meritoria sempre la gratitudine di tutti, poichè la Roma dell' avvenire dove esser la culla della fratellanza dei popoli.

Vi saluti e sono vostro,

G. GARIBALDI.

## THE TRANSLATION.

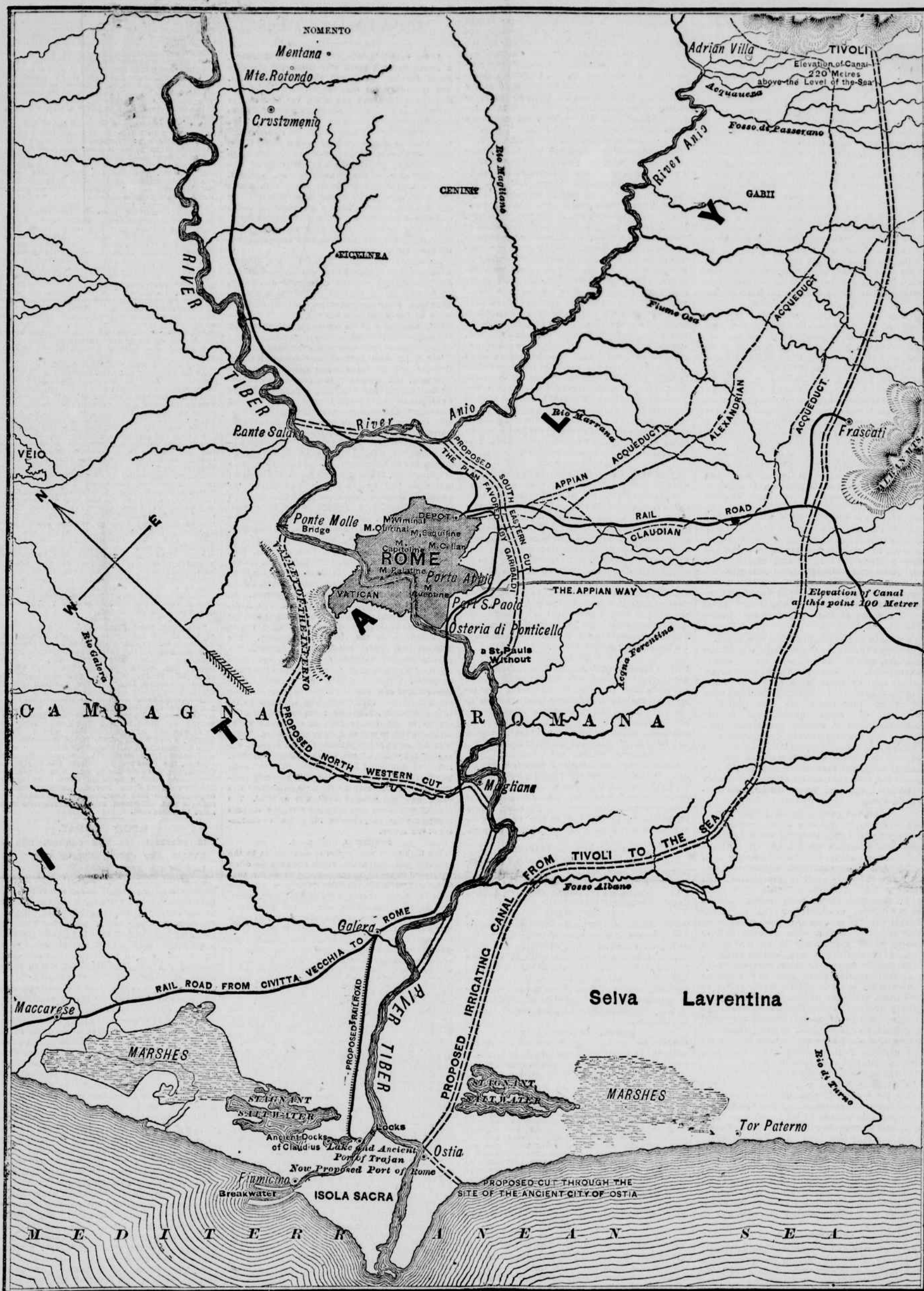
VILLA CASALINI, FUORI DI PORTO PIO, ROMA.  
To JAMES GORDON BENNETT, Esq., Proprietor of the New York Herald:—

I hear with pleasure that the paper whose editor, after long researches, came upon the traces of Dr. Livingstone and conveyed to him the latest assistance and consolation, now proposes to co-operate by all the means in its power in the carrying out of our enterprise tending to ameliorate the sanitary condition of Rome and the Campagna, thereby insuring their much-to-be-desired prosperity.

NATURALLY THE AMERICAN PEOPLE, who have constructed the gigantic dikes of the Mississippi and excavated the navigable canal which leads the waters of Lake Michigan into the Illinois, must interest themselves

## THE CAMPAGNA ROMANA.

Map Showing the Proposed Improvements of the Tiber and to Restore the Campagna to Agriculture.



In projects which will necessitate the utmost efforts of hydraulic science. These projects may be briefly stated as follows:—

First—The diversion of the Tiber on the left, starting from Ponte Milvio (Ponte Molle), winding it round Rome, and bringing it back into its old bed a couple of miles or so south of the city.

Second—The construction of a commercial and military port, capable of receiving the largest vessels, near the mouth of the Tiber, at Fiumicino. This port, which will be constructed inland, will also be useful as a harbor of refuge.

[At one time the plan was to reopen the ancient port of Trajan, but now the General appears to have adopted a port, or docks, nearer Fiumicino, facing the sea.]

From the left branch of the Tiber branch, at Fiumicino, will be thrown out a breakwater of about two kilometres in length, and a second, of about one kilometre, from the opposite bank, which will form the entrance to the port and canal of Fiumicino.

## SMALL CRAFT WILL GO

from the port up the Tiber, and vice versa, by the Fiumicino channel, as far as Ripagrande. The agricultural and sanitary amelioration of the Roman Campagna and a deviation of a part of the waters of the Aniene, to irrigate the land when drained, are plans to be executed later.

THE REALIZATION OF THESE PROJECTS, to which I have so briefly referred, will depend upon the verdict given by scientific men after mature studies and on their financial calculations. As soon as some resolution shall be

come to I shall feel it a duty to keep you informed.

I count upon you to keep alive the interest of the Americans and of the Italians resident in America on questions of such vital interest for Rome, for Italy, and we may also say for the entire world, which regards Rome as the cradle of the brotherhood of the peoples.

G. GARIBALDI.

MARCH 4, 1875.

## THE ROMANS OF THE FUTURE.

Tell your fellow citizens that I am proud to be one of them, and whatever may be done by the generous people of the New World and by our Italians residing there will always merit the gratitude of all, because the Rome of the future ought to be the cradle of the brotherhood of the peoples. I salute you, and am yours,

G. GARIBALDI.

## THE IMPROVEMENTS DESCRIBED.

ROME, March 3, 1875.  
Having had an opportunity of conversing with General Garibaldi and some of the engineers who are assisting him, I am enabled to give you a pretty clear account of the several projects now entertained in Rome for the forming of a new port of Rome, the regulation of the Tiber and the irrigation of the Roman Campagna.

FINANCIAL AND NATIONAL CONSIDERATIONS.  
The schemes, or projects, are of such vast extent and need for their execution such a vast amount of capital that Italy may consider herself very fortunate in possessing General Garibaldi at the present moment, because the world is inclined to support the old revolutionist and look into his plans with sympathy at least, and then give assistance if everything be feasible and promising of good returns. Without the latter, indeed, neither General Garibaldi nor Victor Emmanuel nor His Holiness the Pope could procure English and other foreign money for carrying out the immense projects. Some of the plans entertained and explained to me by General Garibaldi are good, and well deserve the earnest support of capitalists. The new port of

Rome is a very necessary and will be a paying undertaking. The rectification of the bed of the Tiber is likewise very necessary, but evidently a task for Rome herself to perform; because when the bed of the river is regulated it will only have depth enough for vessels of small burden. The irrigation of the Campagna is a duty that Italy should perform by making a loan for the purpose, and enacting remedial laws. Of all these projects I will speak more in detail in my later letters.

## PLANS OF GENERAL GARIBALDI.

I send you with this letter a map of Rome and the Campagna, on which I have sketched, under the eye of Garibaldi himself, the general idea of these plans. And for the present this sketch must suffice, because we are only in the era of new projects, and fresh suggestions come up and are entertained every day. Only one project may be considered as definitely fixed upon, and that is the one relating to the new port and harbor for the city of Rome. Therefore, I will speak about this first of all. The present port and harbor for Rome is Civita Vecchia, distant more than two hours by railroad from the city. It has a large circular harbor, artificially made by Trajan, and is used for naval and mercantile shipping. The proposed new port is but half an hour's distance by railroad from the Eternal City, and will afford accommodation in a perfectly sheltered inland port or dock system to vessels of the greatest dimensions and whence smaller vessels can pursue their course directly up the Tiber (even now) to Rome. It will be filled with sea water, subject to the ebb and flow of the tide, and will be protected from the sands of the Tiber, which destroyed the similar works made by Claudius and Trajan in the first century of the Christian era.

THE HARBOR OF FIUMICINO.  
We see on our map that the Tiber has two outlets to the sea; the wider, but shallower one through the marshes to the south of the Isola Sacra; the other at Fiumicino. This channel, at present navigable for small craft, is to be made deep enough for the largest vessels up as far as Port Trajan, or about thirty-two or thirty-three feet, and twice that depth at the mouth, where there will be a vast breakwater erected, extending about a mile into the sea. Thus the entrance to the harbor of Fiumicino will be a very expensive task, but it is the most necessary, and will enable ships to enter the harbor with perfect safety. To prevent the Fiumicino channel and the breakwater becoming silted it has been decided to exclude the waters of the Tiber from it

altogether. The Tiber brings down every year immense quantities of deposit, so much, indeed, that at its mouth eight or nine feet are annually won from the sea. So, just above Port Trajan, where the river divides into two branches, a system of locks will be built, causing the sandy flood of the Tiber to be carried away to the southern outlet. Thus the Fiumicino channel and the new port or docks cannot be choked up, as was the case with the ports of Trajan and Claudius, whose history we may glance at.

## THE ANCIENT PORT OF OSTIA.

But before describing these ports we may refer for a moment to the scheme of a channel for the Tiber to the sea. This is proposed in order to carry the waters of the river more directly to the Mediterranean, to dry up the immense delta at present occupied from Ostia to the sea, and to drain the surrounding marshes. This channel would cut through the site of the ancient city of Ostia, which had been the port of Rome from the earliest period, and had once a rich population of 80,000 souls. It stood about half a mile lower down the river than the little melancholy village of modern Ostia, with its population of scarcely a hundred inhabitants. The celebrated ancient city of Ostia was founded by Ancus Marcius as the port of Rome, 640 B. C., and for many centuries was the port of embarkation of the several important expeditions to the distant provinces of the Roman world. The expeditions of Scipio Africanus to Spain and Claudius to Britain started from Ostia. The Tiber at that time emptied itself into the sea by a single mouth; but the great quantity of deposit which its flood brought down from the plains soon began to affect the channel to such a degree that in the time of Claudius a new channel and port had to be erected (the channel of Fiumicino and the port bearing the Emperor's name), and at the time of Trajan the port of Ostia was almost entirely choked up. The ancient city was finally destroyed by the Saracens in the fifth century and was never rebuilt. Excavations have been made on its site at various times, and beautiful sculptures, important buildings and temples carried on in a dilatory kind of manner. The new channel proposed by Garibaldi would cut through the site of the ancient city, and it is thought that many valuable works of art would be brought to light in the process of cutting the channel.

THE PORTS OF CLAUDIUS AND TRAJAN.  
The port of Ostia was destroyed, therefore, by

the deposits of the Tiber. It became necessary to form another port and to procure for the waters of the Tiber a more rapid exit by diminishing the length of its course toward the sea. Permit me to quote an excellent authority on this subject:—"An interesting inscription was discovered at Porto, which has thrown much light on the construction of the ancient port. It states that, in consequence of the inundations with which Rome had been threatened by the difficulty of the water of the Tiber reaching the sea, the Emperor Claudius had cut new channels from the then existing branch into the port, in A. D. 46. The following is a copy of this curious record:—

"A part of the extensive area of the port of Trajan is now reduced to a marshy state, although preserving its hexagonal form, surrounded on every side by ruins of buildings which formed the warehouses, the emporium of the maritime commerce of Rome in the second and third centuries, represented on the medals of that Emperor.

PROJECTED BY AUGUSTUS.  
"The works at Porto were not executed until the reign of Claudius, in the middle of the first century. The Portus Claudii appears to have been the first undertaken, and consisted of a vast harbor opening directly on the sea, and to the northwest enclosed by two piers, with a third insulated one, or breakwater, to protect the entrance, surmounted by a lighthouse. In the course of time this port also began to be choked up, in consequence of which that which we now see was commenced by Trajan, and completed about the year 100 after Christ.

THE CIRCUIT OF THE CLAUDIAN PORT may still be traced in the meadows to the north of the hexagonal dock of Trajan. The second object, to afford an increased fall to the Tiber, was effected by cutting a canal, by which its waters reached the sea in a direct instead of by the sinuous line of the old channel, and it is to the latter great work that the above inscription particularly refers. A second canal was subsequently added, by which the basin of Trajan communicated with the Tiber, and by which the vessels arriving in it were enabled to proceed to Rome without unloading and to carry their cargoes to the capital without re-entering the sea. The silted up Port of Claudius and the ancient ruins of Imperial Rome, so much dependent on its maritime commerce for supplies of food, rendered a new harbor necessary, and, as has been already stated, this was undertaken and completed by Trajan. It communicated with the port of Claudius on the northwest side, and was surrounded with warehouses. Its circuit, which is still nearly entire, measured 2,400 yards; the greatest depth of the water in it now scarcely reaches ten feet. A new canal from the Tiber, opening into the hexagonal basin of Trajan, was at the same time excavated, and forms the modern north branch of the river, or the Fiumicino, which extends from beyond Porto to the sea, and is now the only navigable one."

Since the flourishing time of the port of Trajan the sea has receded six or seven miles. Fiumicino, which derives its name from the smaller river on which it stands, is of recent origin. In 1773 the castle at the western extremity of the village was on the borders of the sea, but in 1858 it was distant 319 yards from it. The entrance to the river is narrow, and there is seldom above ten feet of water on the bar.

## THE NEW HARBOR AND PORT OR DOCKS.

From this brief review of the Fiumicino and the ports of Trajan and Claudius, we are enabled to see what is proposed now in the Garibaldian project—that is, to deepen the Fiumicino channel, to reopen the port, or docks of Trajan, and, if necessary, the port of Claudius connected with it, and to connect the port or docks by railroad with Ponte Galeria, which is tapped by the Civita Vecchia railroad to Rome, and also to protect the Fiumicino channel from the sands of the Tiber by means of locks through which the smaller vessels can proceed directly to Rome.

## THE MAIN POINT OF THE PROJECT.

These are the main points of the scheme for erecting the new harbor and port or docks for the city of Rome. Thus Rome will be brought within half an hour's railroad journey from its port, where the largest ships that plough the Mediterranean can find entrance and efficient shelter. This part of the project is feasible, it will repay the cost of execution, and it appears to me that capitalists may invest in it with the greatest confidence. Unfortunately the whole coast is very unhealthy. At Fiumicino, during the summer and autumn, the government officers do not sleep here but are obliged to remove to Rome during the night. But the draining of the marshes around Port Trajan (which Prince Torlonia has promised to do) and the deepening of the Fiumicino channel will doubtless produce very important and beneficial climatic changes in the entire district.

## THE REGULATION OF THE TIBER

will be, if carried out, a much more costly undertaking. To explain this part of the project we must commence the study of our map above Rome. The Tiber, as we see, is a tortuous and unruly stream, preferring to make its course as winding and troublesome as possible before it deigns to enter the great mother ocean. The flow of its waters is, consequently, at certain seasons of the mountains, greatly interrupted, and then they overflow not only the city of Rome itself but vast regions of the Campagna. And the banks (even the bed in places) of the river being higher than the surrounding country, swamps—stagnant, fever-breeding swamps—are created and the health of Rome and the Campagna thereby affected. The plan is, therefore, to rectify the river by cutting off its great angles and to deepen the bed so as to produce a greater velocity of the current, to make embankments where necessary and thus enable the waters to reach the sea without difficulty and without first overflowing the land on either side. We cannot say at present with any degree of certainty what the rectification will cost. This will depend entirely upon which of the two

## PROJECTED CANALS AROUND ROME

itself will be adopted. At present two projects are under consideration, the western and the eastern cut, or canal, both of which will be immensely difficult of execution. The first project is to deviate the course of the Tiber, about two miles above Rome, into the bed of the little river Anio, adapting the bed of that stream for a larger flow of water as far as Ponte Mammolo, five miles to the northeast of Rome, on the road to Tivoli, thence around the city, along the valley of the Marrana, to meet the Tiber again between the Ostian Gate and the Basilica of St. Paul's without. A second plan is to be effected on the right bank of the Tiber by a cut from Ponte Molle, two miles north of Rome, back of the Vatican, through the Valle dell' Internio, all around the Monte delle Piche, to rejoin the river near La Magliana. Garibaldi is in favor of the former plan, in the execution of which portions of the site of ancient Rome would be cut through, and possibly important discoveries would be made. In the latter plan the cuttings would be from 200 to 300 feet in many places, so it is hardly probable that serious considerations will be given to the project. True, Julius Caesar, or some other Caesar, entertained this very plan of diverting the Tiber from Rome at Ponte Molle in a direct cut across the Campagna to the sea. But the Romans of Julius' day were capable of accomplishing greater tasks than the Italians of modern times, who have neither the genius, the perseverance, the funds of their greater forebears. The eastern deviation will not be an easy task; great altitudes have to be cut through, but it is possible that we shall have important archaeological discoveries as the reward.

## THE TIBER IN ROME ITSELF.

By one of these deviations, then, a portion of the waters of the Tiber would be carried to the sea, and the two channels would be sufficient to prevent the recurrence of those terrible inundations that so frequently visit great portions of the Eternal City. It is not intended either to regulate or to dry up the present course of the Tiber through the city, but simply to reduce its width, to cleanse and beautify its whole extent with